

## **8. PUBLIC UTILITIES AND SERVICES**

This section presents an overview of the public utilities and services provided by the City of Hayward or other agencies within the planning area. Issues addressed include fire protection and emergency response, water supply and distribution, wastewater collection and treatment, solid waste management, telecommunications facilities, and energy conservation. While these topics may involve environmental concerns, they pose no major constraints to future development at this time.

### **Fire Protection and Emergency Response**

The City of Hayward Fire Department provides service to the entire city and to the Fairview Fire Protection District on a contract basis. There are seven fire stations located within the city, while two more stations are located in the Fairview area. Existing stations and their response areas are shown in **Figure 8-1**.

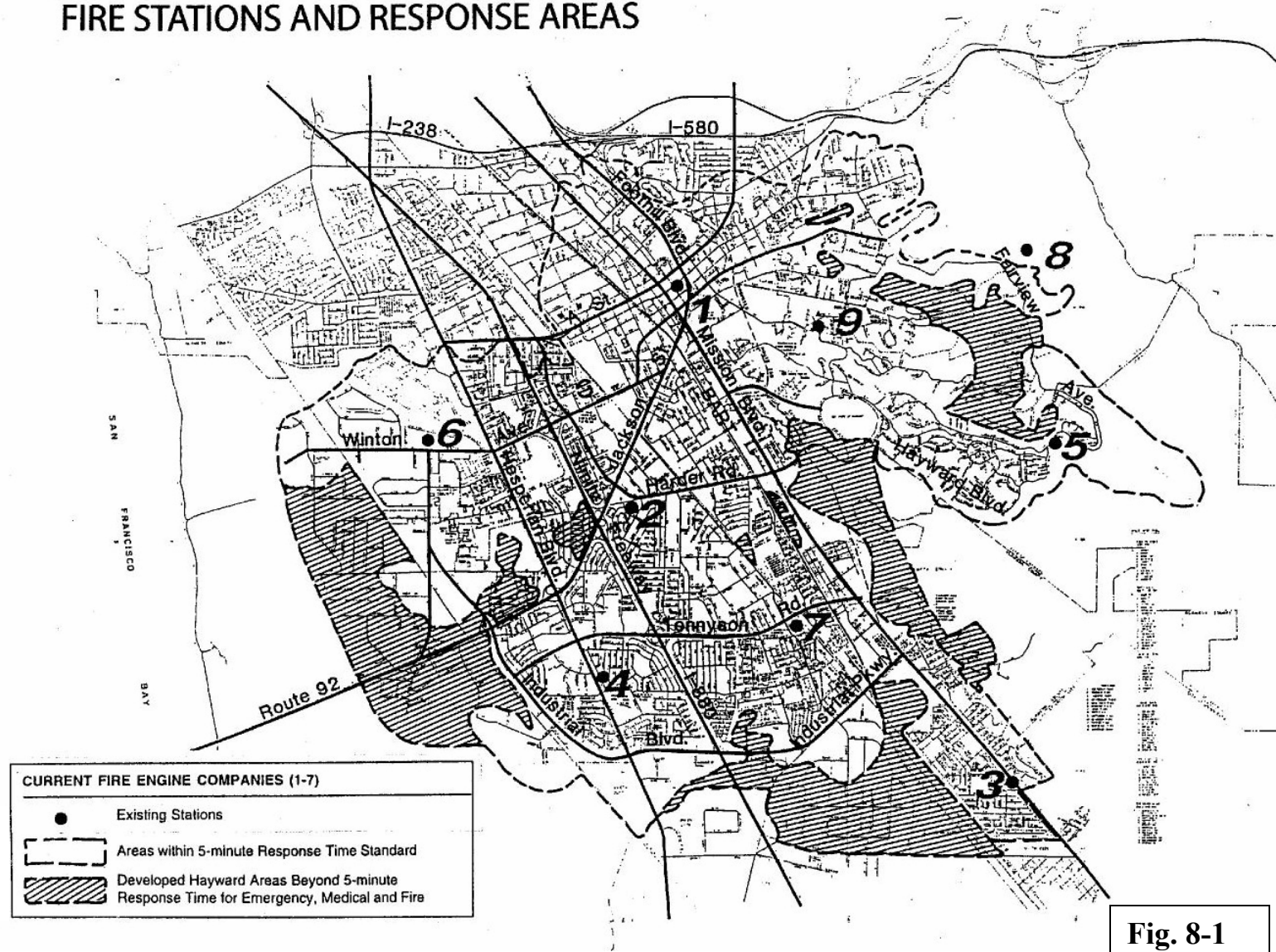
At the present time, 90% of all emergency calls result in the first fire department unit arriving in five minutes or less. In the City of Hayward four units are dispatched to all single-family dwelling fires with five units responding to apartment houses and commercial and industrial fires. The City of Hayward has been able to deliver all dispatched units to 90% of all reported structures fires within ten minutes.

The Hayward Fire Department requires special protection measures in buildings that are difficult to access such as high-rise or larger industrial complexes. Measures include fire sprinklers and smoke detectors, above and beyond what may be required elsewhere.

With regard to the industrial area, the higher standards for fire protection set by nationally recognized organizations have encouraged the construction of many new buildings already equipped with fire protection and alarm systems that meet the needs of high-tech industries. In addition, the high water flows required by these nationally recognized standards and provided by the City water delivery system easily satisfy specifications not only for on-site equipment but also for fire suppression and emergency response equipment. However, older buildings, as well as efforts to convert existing warehouses to more intensive uses, may pose special problems.

The transition to more high-tech industries and the development of previously undeveloped lands in the area will likely bring more people into the industrial corridor. The conversion from existing open warehousing operations to high tech industries will increase the population density within buildings. This in turn may spawn additional demand for commercial development that serves the needs of the larger employee population. Generally, a greater population will result in a higher demand for emergency services.

## FIRE STATIONS AND RESPONSE AREAS



The City has upgraded its Emergency Response System by installing traffic signal priority for Fire Department vehicles. The system has improved response times. Additional funding is being pursued for this program.

#### Wildland Fire Hazards

The City has adopted Wildland/Urban Interface Guidelines for development in the hill area to address potential fire hazards. The Wildland/Urban Interface is defined as the hill area south of D Street and east of Mission Boulevard. Dispatch levels during the fire season are adjusted from moderate to high to extreme fire risk depending on the weather. Four off-road vehicles, one Type 3 engine and three smaller Type 4 engines, are available for deployment.

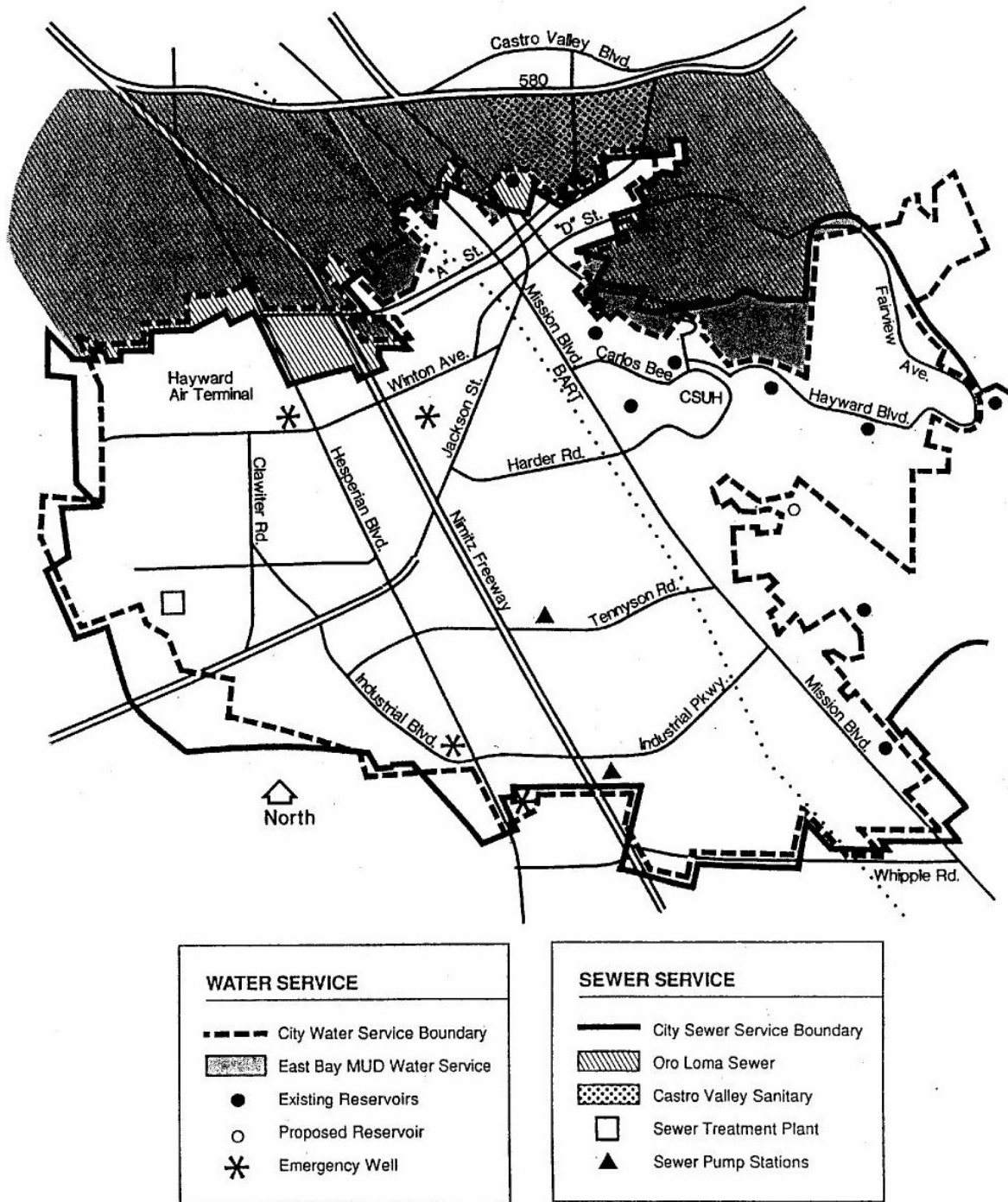
### **Municipal Utility Systems and Capacities**

The City of Hayward owns and operates its own water distribution and wastewater collection and treatment systems. Updates of both the Water Distribution System Master Plan and the Wastewater Collection System Master Plan are currently underway with completion scheduled in 2002. The update of the Master Plan for the Water Pollution Control Facility was completed in the summer of 2001.

#### Water Supply and Distribution

The City purchases all water from the San Francisco Water Department. Most of the water is soft snow water from the high Sierras. The water is captured in the Hetch Hetchy watershed and piped, entirely by gravity, one hundred and fifty miles from their reservoirs in northern Yosemite Park to the Bay Area. A local source, Calaveras Reservoir, is occasionally blended with this snow water to an average content of five percent of the total. The City delivers water through two aqueducts along Mission Boulevard and Hesperian Boulevard that have a total capacity of 32 million gallons per day. The service area is shown in **Figure 8-2**.

The water system is generally in good condition and does not pose significant concerns in terms of accommodating additional development. Local storage and distribution facilities are adequate, with needed improvements programmed in the Capital Improvement Program. Additional needed improvements may be identified in the Master Plan update currently underway. Local emergency wells have been developed as emergency water supply sources in the event of a disruption in water supply, such as might result from an earthquake. The City has also developed emergency interties with the Alameda County Water District and other systems. The present system can provide enough water to serve existing needs and still have reserve capacity for protection against fire, peak demands, and other emergencies. Hayward's annual average water consumption in recent years is depicted in **Figure 8-3**.



WATER AND SEWER SERVICE AREAS

Fig.8-2

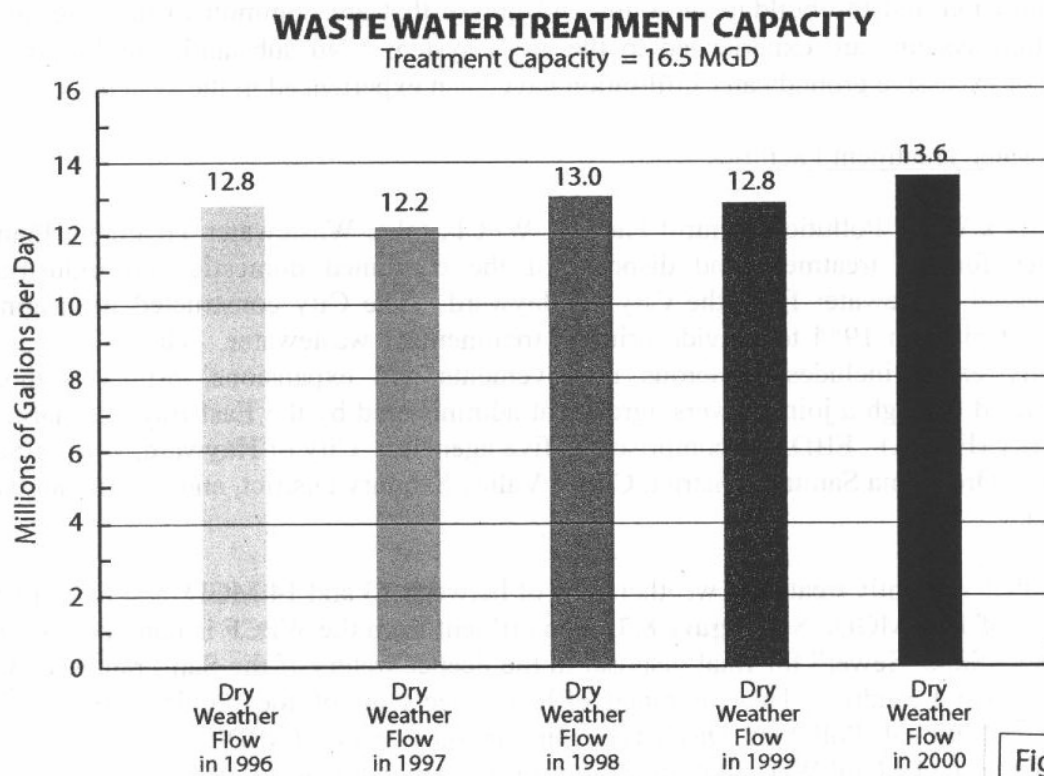
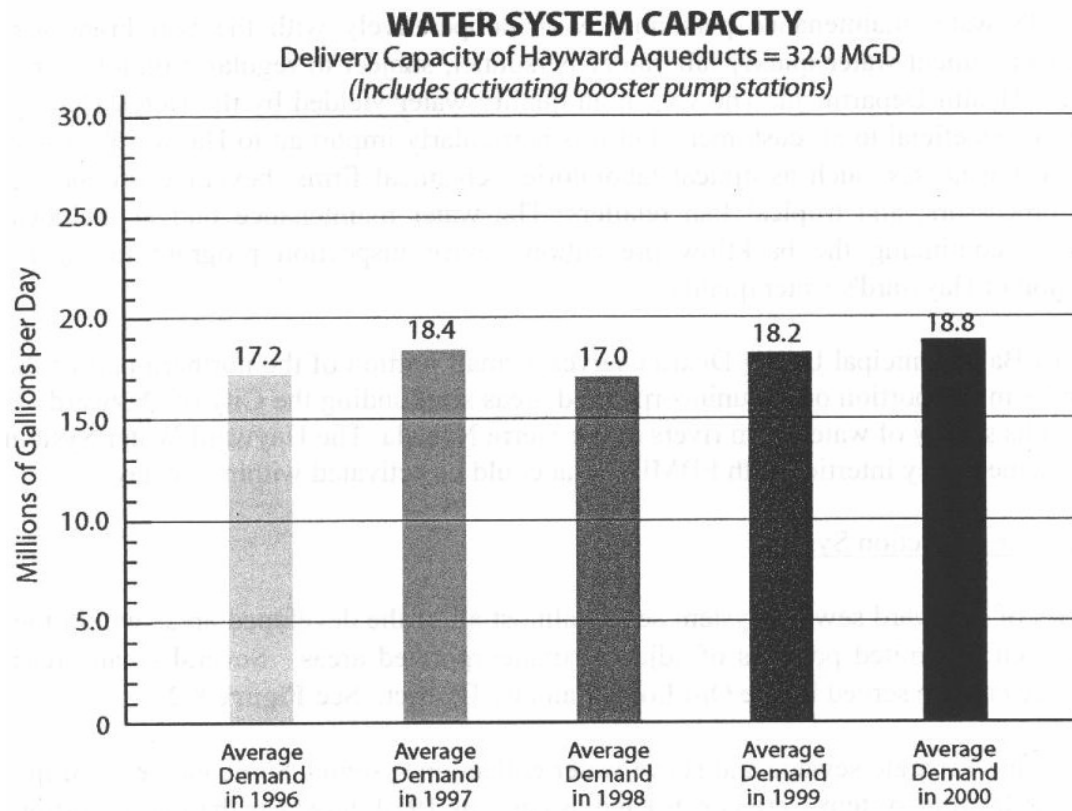


Fig.8-3

Hayward's water maintenance personnel work cooperatively with the San Francisco Water Department water quality laboratory personnel, subject to regular monitoring by the State Health Department. The very high quality water yielded by the Hetch Hetchy System is beneficial to all customers, but it is particularly important to Hayward's water sensitive businesses, such as optical laboratories, chemical firms, beverage producers, photo processors, and tropical fish retailers. The water maintenance budget includes funds for continuing the backflow prevention device inspection program to assure protection of Hayward's water quality.

The East Bay Municipal Utility District serves a small portion of the northern part of the city and a major portion of the unincorporated areas surrounding the City of Hayward. It receives its supply of water from rivers in the Sierra Nevada. The Hayward Water System has two emergency interties with EBMUD that could be activated within one day.

#### Wastewater Collection System

The City of Hayward sewage system serves almost all of the developed areas within the city as well as limited portions of adjacent unincorporated areas. Several small areas within the city are served by the Oro Loma Sanitary District. See **Figure 8-2**.

The City has separate sewage and storm water collection systems. Some elements of the sewage collection system were constructed as early as 1910; however the major portion of the existing system was developed in the post-World War II years. The problems of root intrusion and the buildup of solids and grease that are common to most sewage collection systems are experienced in the city's system. No substantial problems of silting or excessive groundwater infiltration have been experienced in the system.

#### Wastewater Treatment Facilities

The City's Water Pollution Control Facility, WPCF, (aka, Wastewater Treatment Plant) provides for the treatment and disposal of the combined domestic and industrial/commercial wastewater from the City of Hayward. The City constructed its original treatment plant in 1954 to provide primary treatment of wastewater. The WPCF as it currently exists includes numerous improvements and expansions, primarily those constructed through a joint powers agreement administered by the East Bay Dischargers Authority (EBDA). EBDA is comprised of five agencies: City of Hayward, City of San Leandro, Oro Loma Sanitary District, Castro Valley Sanitary District, and Union Sanitary District.

The WPCF currently treats dry weather flow of between 13 and 14 MGD, and has a rated capacity of 16.5 MGD. See **Figure 8.3**. The effluent from the WPCF is pumped into the EBDA's "Super Sewer" for final disposal in the deeper waters of the San Francisco Bay west of San Leandro. The combined effluent meets all of the requirements of the EBDA's National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to the Federal Water Pollution Control Act Amendments of 1972.

The WPCF's rated capacity is sufficient to meet the wastewater treatment needs of the City for the development anticipated under the proposed General Plan Update. However, the City has currently undertaken design of phase I of a two-phase project to substantially improve the performance and reliability of, and provide redundancies for, various processes in the City's wastewater treatment plant. Construction of these improvements would be consistent with the projections for planned growth and development in the General Plan. After completion of the improvements contemplated in two phases of the project, the rated capacity of the plant would remain at 16.5 MGD. However, the WPCF will be enabled to treat the rated volume of the wastewater without its current reliance on flow diversion and storage into the former oxidation ponds.

Additional improvements may be implemented with the construction of the Russell City Energy Center, which would add tertiary treatment to the WPCF in order to produce highly purified water for use by the Energy center. The environmental review for construction of said improvements would be under the auspices of the California Energy Commission. Again, the total rated treatment capacity of the WPCF would remain 16.5 MGD.

### **Solid Waste Management**

The State of California requires that integrated waste management plans be developed for every county in the state. In Alameda County, the responsibility for preparing that plan is accorded the Alameda County Waste Management Authority, pursuant to a Joint Exercise of Powers Agreement between the County of Alameda, the incorporated cities in the county, and the three special districts in the county. State law requires that the waste management plan describe local waste diversion programs that divert 25% of its waste by 1995 and 50% by the year 2000, using 1990 as the base year. The City was able to achieve 25% diversion in 1995. In addition, the City's calculation, which is currently being reviewed by the State, shows that the City has achieved a 50% diversion rate in 2000.

The disposal facility used by the City of Hayward is Altamont Landfill, which is owned and operated by Waste Management, Inc., and is located in the eastern part of the county. The estimated closure date of Altamont is 2024. The other two disposal sites located in Alameda County are the Vasco Road Landfill and the Tri-Cities Landfill. The Vasco Road Landfill is owned by Republic Industries, Inc. and is also located in the eastern part of the county. The estimated closure date for Vasco is 2015. The Tri-Cities Landfill is located in the City of Fremont and serves the Cities of Fremont, Newark and Union City. This site is operated by Waste Management, Inc. and is slated for closure in 2002. Thus, the combined disposal capacity of the three facilities is approximately 31 years, based on the rate of fill in 2000.

Currently, the City of Hayward has a franchise agreement with Waste Management, Inc. for collection and disposal of solid waste generated within its jurisdiction. The franchise agreement between the City of Hayward and Waste Management, Inc. is in effect through May 2007. In addition to the franchised collector, contracted collectors and individuals

haul minor amounts of wastes. The Hayward area is served by the Davis Street transfer station, which is located in San Leandro and owned and operated by Waste Management, Inc.

### Recycling Programs

The City has adopted a Source Reduction and Recycling Element that addresses recycling issues and establishes recycling programs. The California Integrated Waste Management Act of 1989 (AB 939) requires that all jurisdictions in California reduce the amount of material that is landfilled by 50% by the year 2000. In response to that state law, the City has implemented the following programs and services:

The City has executed a contract with Waste Management, Inc., a private company, to provide weekly garbage and recycling services. Single-family residents are provided with weekly collection of a variety of recyclables, including yard trimmings, newspaper, mixed paper, glass jars and bottles, aluminum and steel containers, juice/drink boxes, plastic bottles marked #1 - 7, cardboard, and used motor oil. Multi-family residents can recycle all of these materials, except motor oil. Christmas trees are also collected following the holiday from single- and multi-family residences. Educational materials are regularly disseminated to residents regarding all of these services. In order to reduce the amount of waste disposed by businesses, City staff offers its assistance to implement waste reduction and recycling programs, including educational materials for employees.

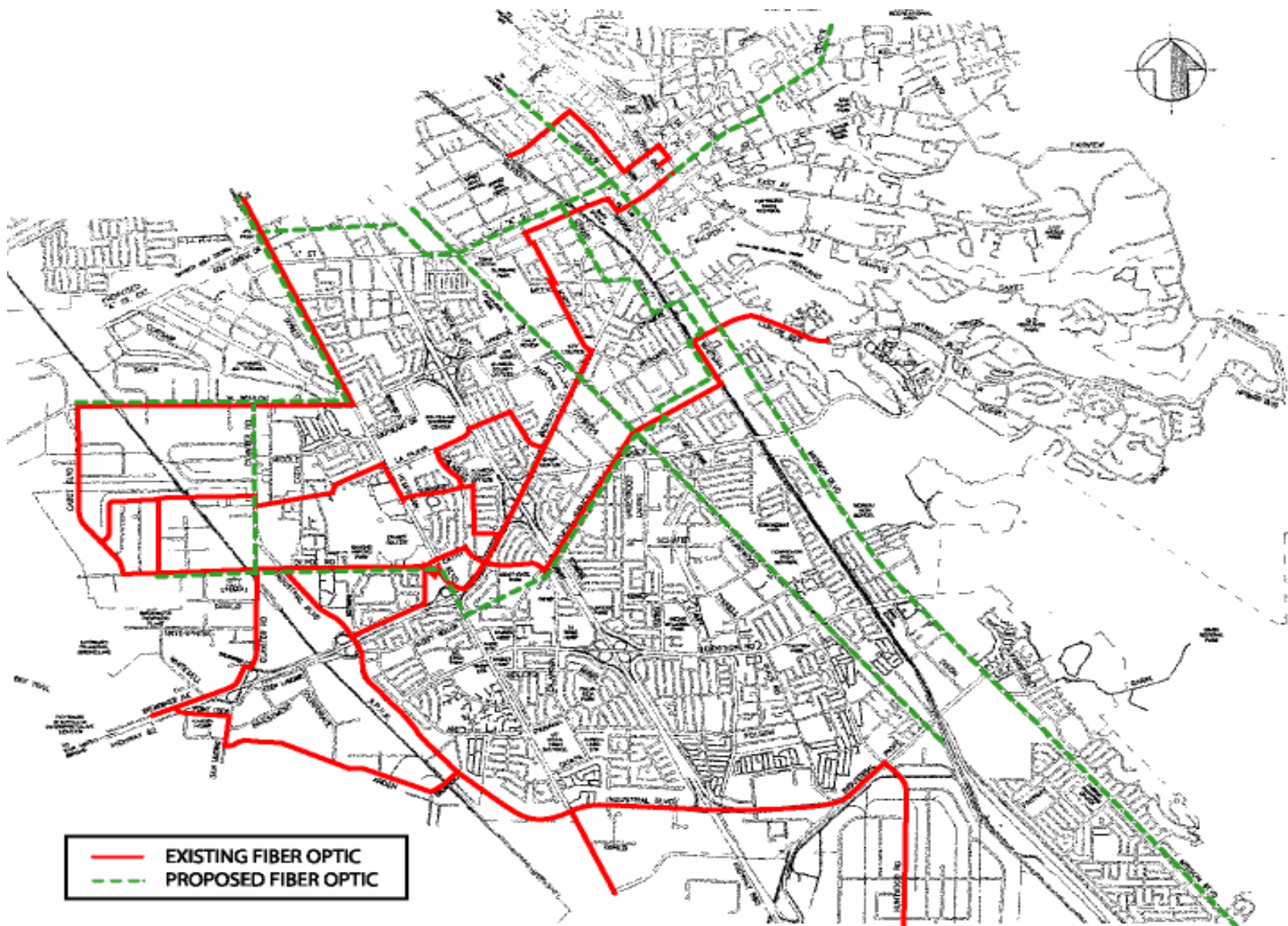
In an effort to comply with the state law, the City requires recycling of construction and demolition debris. As construction activities have increased in the Bay Area, construction and demolition debris has become a significant component of the waste stream and is a targeted material for diversion.

### **Telecommunications Facilities**

Fiber optic installations are important to the overall economic competitiveness of the city, and especially to the continued development of the Industrial Corridor. Since 1995, staff has been tracking installation of fiber optic conduits throughout the city. The location of existing and proposed routes is shown in **Figure 8-4**. Existing routes extend to all parts of the Industrial Corridor. Two of the existing routes also serve the Downtown area and California State University-Hayward. Major proposed routes would extend along Upper B Street, Mission Boulevard, and West A Street. The City may wish to consider requiring that large development projects incorporate the provision of fiber optic facilities.

California State University-Hayward is currently considering a proposal to construct an internet switching facility (or carrier hotel) in the southern portion of its campus. This facility would help meet the ongoing demand for such services and provide support for academic programs on campus. The CSUH administration is also pursuing the construction of a fiber optic ring that would serve the Hayward community.





**Fig. 8-4**

## **Energy Conservation**

Because energy and land were relatively cheap during the time most of Hayward was developed, low density development served by automobile transportation was typical. Energy conservation was not an important consideration in construction or siting of buildings. As energy costs rise in response to world demand and resource limitations, and as the connection between scattered development, automobile use, and deterioration of air quality is recognized, energy conservation becomes a critical element of planning. Transportation, land use, and building standards must seek to reduce fossil fuel consumption and to develop the use of renewable energy sources.

The City has implemented various programs to reduce energy consumption. Extending beyond its own facilities, the City has also developed programs to promote energy conservation for residents. Community Development funds provide subsidized or deferred loans to remedy building code-related defects and to weatherize the homes of seniors or low / moderate income households. The City also provides grant funds to the Senior Minor Home Repair program, which often includes weatherization in the services it provides program recipients. Grant funds are also used to support Eden Housing, a local non-profit housing development corporation, which developed a model project incorporating passive utilization of solar energy in its basic design and active solar hot water heating.

City of Hayward building codes are modeled upon the State Codes, and to the extent energy conserving features are a State requirement, they are included in the local codes. These codes specify minimum insulation and weather-stripping requirements, heating and cooling appliance requirements, and maximum glazing areas in new residential construction so that new construction meets a defined standard of energy efficiency.

Hayward residents and businesses are also able to take advantage of programs offered through Pacific Gas and Electric Company. City participation in these programs serves to make energy conservation a community priority and facilitate outreach.

The City may elect to go beyond outreach or provision of incentives in promoting energy conservation by adopting a variety of energy related ordinances. Local ordinances might require all new and existing swimming pool installations to use solar energy. In addition, a solar access ordinance might protect existing and future solar installation from shading by adjoining development or growth.

Land use decisions and policies also affect energy conservation. Consumption of conventional energy resources can be reduced by encouraging development patterns that concentrate growth along transportation corridors or integrate with existing transit systems, and by creating higher density, mixed-use areas.

**PUBLIC UTILITIES AND SERVICES  
POLICIES AND STRATEGIES**

Emergency Response and Preparedness

**1. The City will seek to maintain an appropriate level of emergency response commensurate with the needs of residents and businesses.**

1. Adopt and enforce building and fire codes utilizing fire suppression capabilities available to the City.
2. Maintain a well trained and equipped fire suppression force commensurate with the level of risk to life and property from fire.
3. Provide a program of fire safety education for all citizens, but directed primarily at the high-risk population (senior citizens and young children).
4. Support training of fire and police personnel to ensure an adequate level of emergency medical response.

**2. The City will seek to minimize urban wildfire hazards in the hill area.**

1. Implement the Wildland/Urban Interface Guidelines during the planning and design of development in high fire hazard areas.
2. Enforce building and fire prevention codes that require property owners to reduce wildfire hazards on their properties.
3. Coordinate with other jurisdictions and agencies to address wildfire hazards in the East Bay hills.

**3. The City will promote disaster preparedness at both the citizen and government levels.**

1. Provide public education promoting citizen awareness and preparedness for self-action in case of a major disaster.
2. Maintain response capabilities within the Department of Public Works to assure that City resources can be appropriately utilized during incidents of major or disaster proportions.

Public Utilities

**4. Public facilities will be maintained and operated in a manner that protects and enhances the environment.**

1. Control waste discharge to avoid contamination of water resources, damage to bay ecology and hill erosion.
2. Utilize dredged silt and processed waste sludge productively, such as for marsh restoration and park development.

Energy Conservation

**5. Hayward will promote energy conservation.**

1. Promote development patterns that are integrated with existing transit systems and encourage transit, bike and pedestrian circulation.
2. Encourage mix of shopping, employment and residential use in areas that are to be more intensely developed.
3. Monitor energy use of City facilities and street lighting; utilize public buildings to demonstrate solar orientation and energy conservation principles.
4. Emphasize energy conservation measures for existing development, and encourage use of periodic energy audits.
5. Study feasibility of requiring energy audit and performance of cost effective conservation measures when properties are sold (such as ceiling insulation, weatherstripping, etc.).
6. Support the improvement and enforcement of State energy conservation standards for new construction.
7. Develop an ordinance that encourages solar orientation in the site planning for new construction, protects solar access from future adjacent development, and promotes the use of solar systems where cost effective.
8. Seek to expand programs that capture energy from waste treatment.
9. Promote energy education with fairs, bike or solar tours, workshops, or media campaigns.